UNITED STATES PATENT AND TRADEMARK OFFICE

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/754,385 | 01/08/2001 | Jonathan M. Goldberg | 3386.P010 | 9781 |

8791     7590     08/16/2005

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| EXAMINER |
|---|
| WOO, ISAAC M |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2162 | |

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
| **Office Action Summary** | 09/754,385 | GOLDBERG ET AL. |
| | Examiner | Art Unit | |
| | Isaac M. Woo | 2162 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on <u>03 June 2005</u>.

2a) ☐ This action is **FINAL**.  2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) *1-31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-17 and 18-31* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All  b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/1/05</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

## DETAILED ACTION

1.     A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection.  Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114.  Applicant's submission filed on June

30, 2005 has been entered.

2.     Claims 1-4, 8-10, 12-13, 19-20, 22-23, 26-27 and 29 are amended. Claim 18 is

canceled. Claims 1-17 and 19-31 are pending.

### *Claim Rejections - 35 USC § 101*

3.     35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

5.     Claims 1-17, 19-25 and 31 are rejected under 35 U.S.C. 101 because the

claimed invention is directed to non-statutory subject matter.

As set forth in MPEP 2106 (II) (A):

   A. *Identify and Understand Any Practical Application Asserted for the*
*Invention*

   *The claimed invention as a whole must accomplish a practical*
*application. That is, it must produce a "useful, concrete and tangible*
*result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of*
*this requirement is to limit patent protection to inventions that possess a*
*certain level of "real world" value, as opposed to subject matter that*
*represents nothing more than an idea or concept, or is simply a starting*
*point for future investigation or research (Brenner v. Manson, 383 U.S. 519,*
*528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26*
*USPQ2d 1600,1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure*
*should contain some indication of the practical application for the claimed*
*invention, i.e., why the applicant believes the claimed invention is useful.*

   *Apart from the utility requirement of 35 U.S.C. 101, usefulness under*
*the patent eligibility standard requires significant functionality to be*
*present to satisfy the useful result aspect of the practical application*
*requirement. See Arrhythmia, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely*
*claiming nonfunctional descriptive material stored in a computer-readable*
*medium does not make the invention eligible for patenting. For example, a*
*claim directed to a word processing file stored on a disk may satisfy the*
*utility requirement of 35 U.S.C. 101 since the information stored may have*
*some "real world" value. However, the mere fact that the claim may satisfy*
*the utility requirement of 35 U.S.C. 101 does not mean that a useful result*
*is achieved under the practical application requirement. The claimed*
*invention as a whole must produce a "useful, concrete and tangible" result to*
*have a practical application.*

Regarding claims 1 and 31, a method of generating a map, and a method of generating knowledge neighborhood, can be implemented without computer or machine. Because the limitation of claim 1, "determining", "analyzing", "deriving" and "using" and claim 31, "selecting", "determining" and "deriving", can be implemented by a human with a pencil, and a piece of paper for searching an electronic document. Thus, the languages of claims 1 and 31 raise a question as to whether the claimed method is directed merely to an abstract idea that is not tied to a producing a concrete, useful, and tangible result to from the basis of statutory subject matter under 35 U.S. C. § 101. Therefore, the claimed invention is non-statutory subject matter. The claims should be amended to indicate that the subject matter is implemented by a computer, i.e., a computer implemented method.

Regarding claim 19, a computer-readable medium having computer executable instructions. The limitation of claim 19, "determining", "identifying", "analyzing", "deriving" and "using" are computer programs (instructions) that are embedded any a computer-readable medium but not run by any a computer or machine. Therefore, the claim is not a statutory system and should be rejected under § 101 as not being tangible. The claims should be amended to indicate that the subject matter is implemented, run, or executable by a computer or machine.

### Claim Rejections - 35 USC § 102

4.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.      Claims 1-17 and 19-30 are rejected under 35 U.S.C. 102(e) as being anticipated

by Aggarwal et al (U.S. Patent No. 6,360,227, hereinafter, "Aggarwal").

        With respect to claim 1, Aggarwal discloses, determining a root concept, see

(608, 610, fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57); identifying knowledge

profiles representing within an organization (col. 1, lines 46-57) and having the root

concept in common (root, fig. 8, col. 10, lines 21-45, hierarchical tree organization has

root node); analyzing the knowledge profiles (training document, fig. 2) to determine a

knowledge neighbor (training documents are analyzed, fig. 2, col. 4, lines 10-51),

wherein the knowledge neighbor is a concept that at least a subset of the knowledge

profiles have in common and that differs from the root concept, see (206, 208, fig. 2, col.

9, lines 16-63, col. 10, lines 45-61); deriving an affinity to represent a relationship

between the root concept and the knowledge neighbor, see (208, fig. 2, col. 9, lines 16-

63, col. 10, lines 45-61, affinity based on distance coefficients between nodes of tree

hierarchy, fig. 9, col. 10, lines 62-67 to col. 11, lines 1-31); and using the root concept

(root node, fig. 8), the knowledge neighbor (for instance, engineering and schools, fig.

8) and the affinity (for instance, affinity between engineering and schools is engineering

schools on fig. 8) to create a map to represent a knowledge neighborhood, see (fig. 1,

fig. 8, col. 10, lines 21-45).


With respect to claim 2, Aggarwal discloses, new root concept to determine an

additional knowledge neighbor, see (608, 610, fig. 6, col. 9, lines 55-63, level 0, fig. 1,

col. 1, 46-57).


With respect to claim 3, Aggarwal discloses, filtering concepts common to the

knowledge profiles against a pre-determined confidence level threshold, see (col. 11,

lines 49-67 to col. 12, lines 1-65).


With respect to claim 4, Aggarwal discloses, filtering knowledge profiles which

contain the root concept against a pre-determined confidence level threshold, see (col.

11, lines 49-67 to col. 12, lines 1-65).


With respect to claim 5, Aggarwal discloses, obtaining an identity for the root

concept, see (608, 610, fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57).


With respect to claim 6, Aggarwal discloses, receiving a user selection of the root

concept, see (608, 610, fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57).

With respect to claim 7, Aggarwal discloses, root concept is selected from the group consisting of a knowledge term, a profile, a search criteria, and a document, see (fig. 2, training document, col. 9, lines 16-63, col. 10, lines 45-61).

With respect to claim 8, Aggarwal discloses, map graphically illustrates the root concept, the knowledge neighbor, and the affinity, see (fig. 8, col. 10, lines 21-45).

With respect to claim 9, Aggarwal discloses, new root concept to determine an additional knowledge neighbor, see (608, 610, fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57).

With respect to claim 10, Aggarwal discloses, overlaying the map on an earlier generated map, see (fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57).

With respect to claim 11, Aggarwal discloses, map graphically illustrates more than one knowledge neighbor ms a single knowledge neighbor, see (fig. 8, col. 10, lines 21-45).

With respect to claim 12, Aggarwal discloses, graphically illustrating the knowledge neighbor if the knowledge neighbor satisfies an affinity threshold, see (fig. 8, col. 10, lines 21-45).

With respect to claim 13, Aggarwal discloses, a node representing the root concept; a node representing the knowledge neighbor; and an edge representing the affinity for the knowledge neighbor, the edge graphically linking the node representing the root concept and the node representing the knowledge neighbor, see (fig. 8, col. 10, lines 21-45, fig. 1, col. 1, lines 47-67 to col. 2, lines 1-54).

With respect to claim 14, Aggarwal discloses, edge is illustrated with a length proportional to the affinity, see (fig. 8, col. 10, lines 21-45, fig. 1, col. 1, lines 47-67 to col. 2, lines 1-54).

With respect to claim 15, Aggarwal discloses, edge is illustrated with a color assigned to the affinity, see (fig. 8, col. 10, lines 21-45, fig. 1, col. 1, lines 47-67 to col. 2, lines 1-54).

With respect to claim 16, Aggarwal discloses, counting knowledge profiles associated with the knowledge neighbor; and calculating the affinity using the count, see (col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57).

With respect to claim 17, Aggarwal discloses, factoring in a confidence level for the knowledge neighbor in each of the counted knowledge profiles, see (col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57).

With respect to claim 19, Aggarwal discloses, determining a root concept, see (608, 610, fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57); identifying knowledge profiles representing within an organization (col. 1, lines 46-57) and having the root concept in common (root, fig. 8, col. 10, lines 21-45, hierarchical tree organization has root node); analyzing the knowledge profiles (training document, fig. 2) to determine a knowledge neighbor (training documents are analyzed, fig. 2, col. 4, lines 10-51), wherein the knowledge neighbor is a concept that at least a subset of the knowledge profiles have in common and that differs from the root concept, see (206, 208, fig. 2, col. 9, lines 16-63, col. 10, lines 45-61); deriving an affinity to represent a relationship between the root concept and the knowledge neighbor, see (208, fig. 2, col. 9, lines 16-63, col. 10, lines 45-61, affinity based on distance coefficients between nodes of tree hierarchy, fig. 9, col. 10, lines 62-67 to col. 11, lines 1-31); and using the root concept (root node, fig. 8), the knowledge neighbor (for instance, engineering and schools, fig. 8) and the affinity (for instance, affinity between engineering and schools is engineering schools on fig. 8) to create a map to represent a knowledge neighborhood, see (fig. 1, fig. 8, col. 10, lines 21-45).

With respect to claim 20, Aggarwal discloses, new root concept to determine an additional knowledge neighbor, see (608, 610, fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57).

With respect to claim 21, Aggarwal discloses, obtaining an identity for the root concept, see (608, 610, fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57).

With respect to claim 22, Aggarwal discloses, map graphically illustrates the root concept, the knowledge neighbor, and the affinity, see (fig. 8, col. 10, lines 21-45).

With respect to claim 23, Aggarwal discloses, new root concept to determine an additional knowledge neighbor, see (608, 610, fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57).

With respect to claim 24, Aggarwal discloses, overlaying the map on an earlier generated map, see (fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57).

With respect to claim 25, Aggarwal discloses, map graphically illustrates more than one knowledge neighbor ms a single knowledge neighbor, see (fig. 8, col. 10, lines 21-45).

With respect to claim 26, Aggarwal discloses, determining a root concept, see (608, 610, fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57); identifying knowledge profiles representing within an organization (col. 1, lines 46-57) and having the root concept in common (root, fig. 8, col. 10, lines 21-45, hierarchical tree organization has root node); analyzing the knowledge profiles (training document, fig. 2) to determine a

knowledge neighbor (training documents are analyzed, fig. 2, col. 4, lines 10-51),

wherein the knowledge neighbor is a concept that at least a subset of the knowledge

profiles have in common and that differs from the root concept, see (206, 208, fig. 2, col.

9, lines 16-63, col. 10, lines 45-61); deriving an affinity to represent a relationship

between the root concept and the knowledge neighbor, see (208, fig. 2, col. 9, lines 16-

63, col. 10, lines 45-61, affinity based on distance coefficients between nodes of tree

hierarchy, fig. 9, col. 10, lines 62-67 to col. 11, lines 1-31); and using the root concept

(root node, fig. 8), the knowledge neighbor (for instance, engineering and schools, fig.

8) and the affinity (for instance, affinity between engineering and schools is engineering

schools on fig. 8) to create a map to represent a knowledge neighborhood, see (fig. 1,

fig. 8, col. 10, lines 21-45).


With respect to claim 27, Aggarwal discloses, new root concept to determine an

additional knowledge neighbor, see (608, 610, fig. 6, col. 9, lines 55-63, level 0, fig. 1,

col. 1, 46-57).


With respect to claim 28, Aggarwal discloses, obtaining an identity for the root

concept, see (608, 610, fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57).


With respect to claim 29, Aggarwal discloses, map graphically illustrates the root

concept, the knowledge neighbor, and the affinity, see (fig. 8, col. 10, lines 21-45).

With respect to claim 30, Aggarwal discloses, overlaying the map on an earlier

generated map, see (fig. 6, col. 9, lines 55-63, level 0, fig. 1, col. 1, 46-57).

## *Conclusion*

6.      Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Isaac M. Woo whose telephone number is (571) 272-

4043.  The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John E. Breene can be reached on (571) 272-4107.  The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system.  Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

IMW
August 8, 2005

JEAN M. CORRIELUS
PRIMARY EXAMINER